



## Gulf of Mexico Harmful Algal Bloom Bulletin

17 March 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: March 14, 2005

**Conditions:** A harmful algal bloom has been identified from Manatee to Lee counties. Patchy moderate to high impacts are expected today and tomorrow, with low impacts through the weekend. While the bloom has not been confirmed in northern Collier County, the prevailing winds tonight and tomorrow could lead to a potential for patchy low impacts.

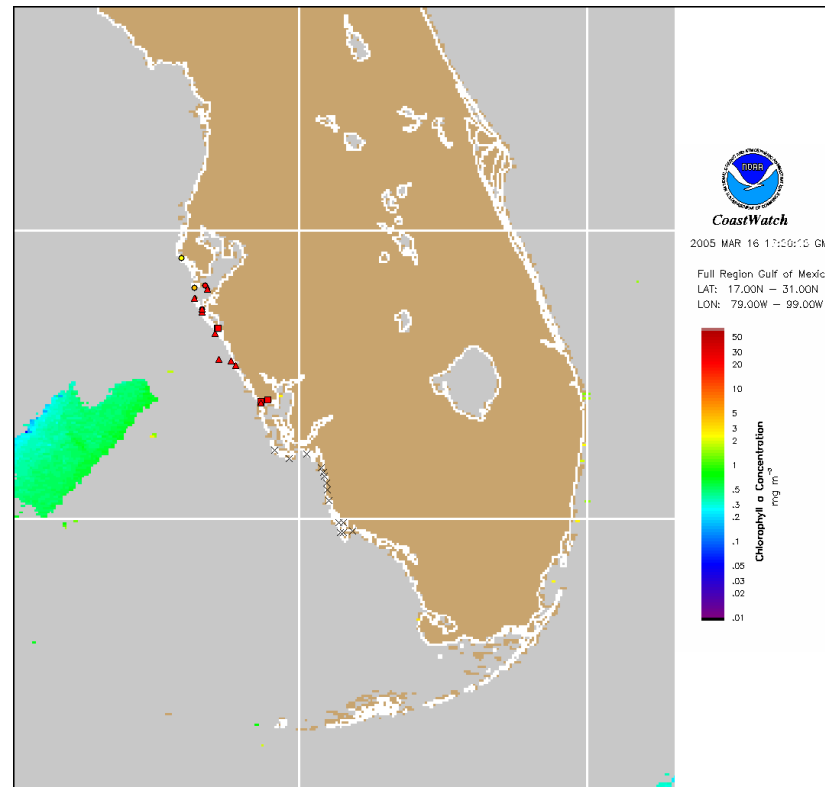
**Analysis:** Cloudy imagery has obscured the bloom currently located from Manatee to Lee counties. Respiratory irritation and dead fish have been reported between Venice and Captiva. 31 manatee deaths have been reported between Manatee and Lee counties, although red tide has not yet been confirmed the cause of death. High concentrations of *Karenia brevis* were reported last week in southern Sarasota county, with medium concentrations from the mouth of Tampa Bay to Boca Grande. The bloom has moved onshore in Lee county, but there have been no reports of respiratory irritation as far south as Collier County. The bloom may be mixed along its southern edge. The offshore component of the bloom has split off from the alongshore bloom and may be primarily a diatom bloom. Offshore sampling is recommended. Continued southerly winds in the past week have likely slowed the southern transport of the alongshore bloom. Northerly winds Friday and Saturday are likely to ease coastal impacts and continue slow southern transport of the bloom.

Several low and very low concentrations and one medium concentration of *Karenia brevis* were identified by Mote Marine Laboratory March 14, southwest of Cape Sable. March 13 imagery indicated a chlorophyll level over 4  $\mu\text{g/L}$  at 24°56'N 81°11'W.

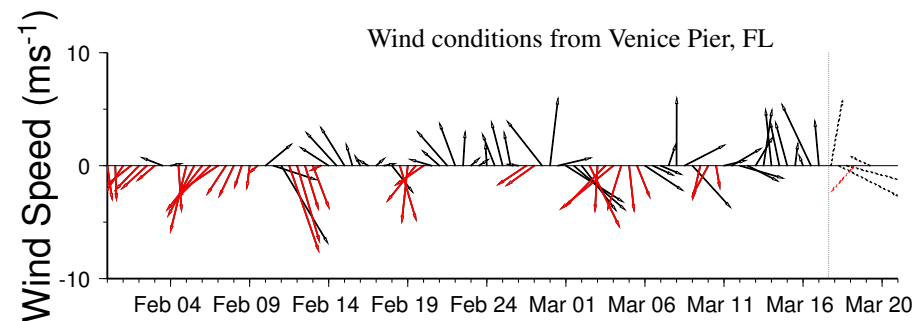
-Stolz and Fisher

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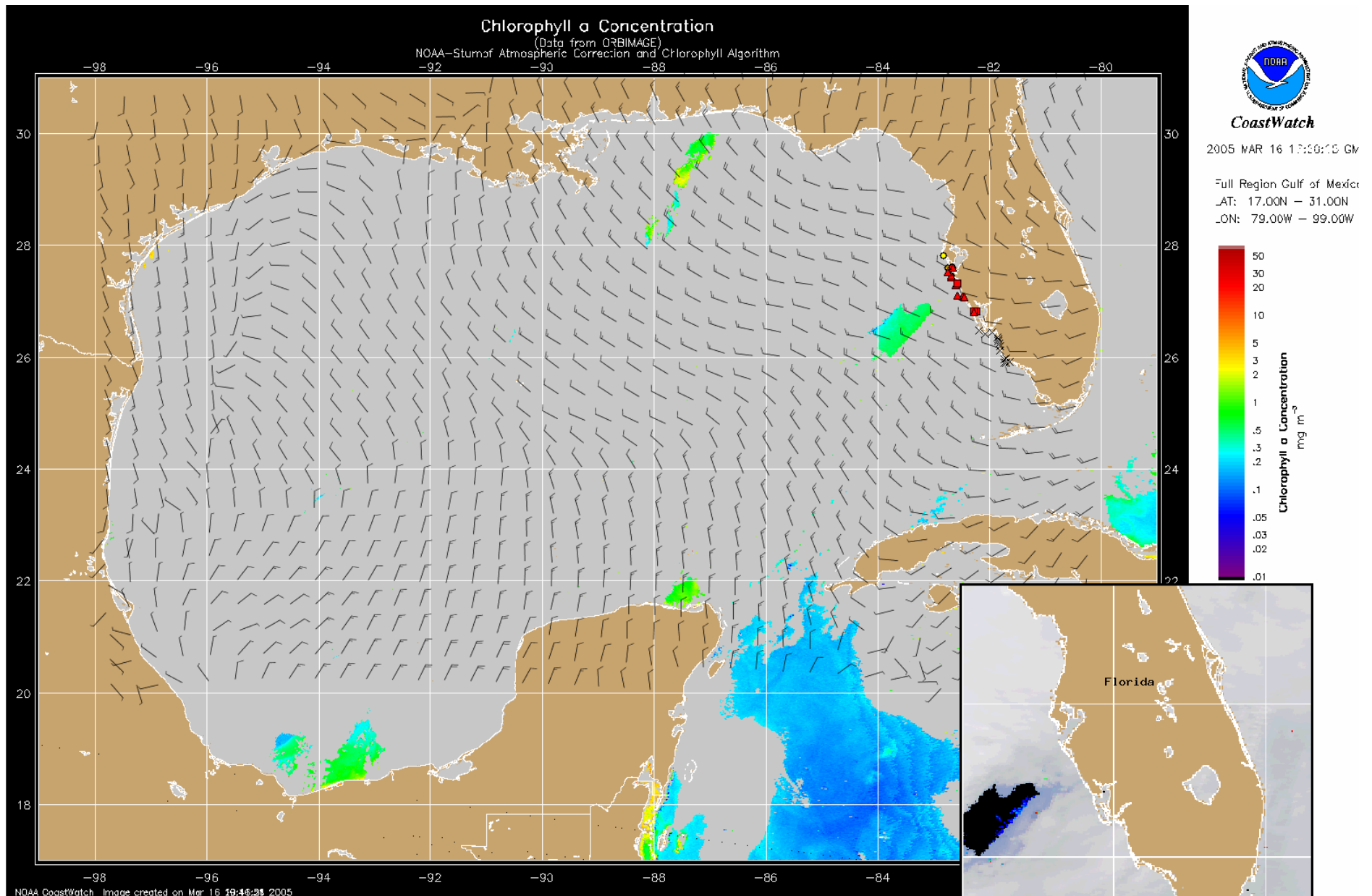


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 4, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

Southwest winds at 10-15 knots (5-8 m/s) today, becoming northwest tonight and tomorrow. Northeast winds tomorrow night and Saturday, clocking around to the east Saturday night and southeast by Sunday. Southerly winds Monday.



Chlorophyll concentration from satellite and forecast winds for March 18, 2005 06Z with cell concentration sampling data from March 4, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)

